ABSTRACT OF THE DISCLOSURE

An image compression apparatus includes an image transformer for transforming each pixel of an image data into binary bit array. The bits of a same bit plane are located in a same column. A context modeler, coupled to the image transformer, includes a context

5   model template and a context model. When the bit array is imported, a plurality of reference context bits for a bit to be compressed is determined by means of the context model template. The bit to be compressed and the plurality of reference context bits are on a same bit plane. A mathematic encoder, coupled to the context modeler, encodes the bit to be compressed according to the context modeler and the information provided by the

10   plurality of reference context bits.